

**ALKALINE ELECTROLYTE FUEL CELL SYSTEM**

**Patent number:** JP1124962  
**Publication date:** 1989-05-17  
**Inventor:** WATANABE SHUNJI  
**Applicant:** FUJI ELECTRIC CO LTD  
**Classification:**  
- international: H01M8/04  
- european:  
**Application number:** JP19870283835 19871110  
**Priority number(s):**

**Report a data error here**

**Abstract of JP1124962**

**PURPOSE:**To quickly preheat a fuel cell main body by burning purge H<sub>2</sub> and purge O<sub>2</sub> produced when N<sub>2</sub> is replaced by reaction gas in a catalyst combustor, and by circulating the reaction gas containing heated N<sub>2</sub> to each unit cell.

**CONSTITUTION:**H<sub>2</sub> or purge H<sub>2</sub> supplied to a H<sub>2</sub> circulation circuit 11 is used as a fuel gas, and O<sub>2</sub> or purge O<sub>2</sub> supplied to an O<sub>2</sub> circulation circuit 21 is used as an oxidizing agent gas. A heating device including a catalyst combustor 44 is connected to the H<sub>2</sub> circulation circuit 11 or the O<sub>2</sub> circulation circuit 21 and an inert gas supply passage 31 through a valve. A fuel cell main body 1 is preheated to a specified temperature necessary for power generation. By utilizing the time required to replace N<sub>2</sub> with reaction gas and reaction gas which is usually exhausted because of containing N<sub>2</sub>, the fuel cell main body whose temperature is 15 deg.C or lower is preheated to a temperature of several tens degrees centigrade necessary for power generation without specific preheating time and a specific energy source.

---

Data supplied from the **esp@cenet** database - Patent Abstracts of Japan